

NEW MEXICO OIL CONSERVATION COMMISSION
MULTIPLE TEST AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 5-23-78		RECEIVED JUN - 5 1978	
Company PHOENIX RESOURCES Co.				Orientation TO AIR					
Pool UNDESIGNATED				MORROW				Unit O. C. C.	
Completion Date 5-18-78		Total Depth 7,919'		Fluid Back TD 7,776'		Elevation 4379 KB		Farm or Lease Name GARDNER DRAW UNIT 20	
Csg. Size 4 1/2"	Wt. 10.5# 11.6#	d 4.052" 4.000"	Set At 7,919'	Perforations: From 7,018' To 7,188'				Well No. 1	
Tbg. Size 2 3/8"	Wt. 4.7#	d 1.995"	Set At 7,013'	Perforations: From OPEN ENDED				Unit Sec. Twp. Rge. C 20 19S 21E	
Type Well - Single - Bradenhead - G.C. or G.O. Multiple SINGLE						Packer Set At 7,007'		County EDDY	
Producing Thru TUBING		Reservoir Temp. °F 158 @ 7,064'		Mean Annual Temp. °F 60		Baro. Press. - P _g 13.2		State NEW MEXICO	
L 7064	H 7064	Gg 0.6515	% CO ₂ .405	% N ₂ .809	% H ₂ S -0-	Prover	Meter Run 4"	Taps FLG	

FLOW DATA							TUBING DATA		CASING DATA		Duration of Flow
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h _w	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	
SI							2455				72 HRS.
1.	4"	x	2.250"	400	7	70	2390	62			45 MIN
2.	4"	x	2.250"	400	19	69	2290	68			30 MIN
3.	4"	x	2.250"	375	36	56	2163	78			75 MIN
4.	4"	x	2.250"	430	74	58	1790	91			75 MIN
5.	4"	x	2.250"	500	90	70	1540	88			60 MIN

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor Fg	Super Compress. Factor, Fpv	Rate of Flow Q, Mcfd
1	25.64	53.78	413.2	.9905	1.251	1.039	1775
2	25.64	88.60	413.2	.9915	1.251	1.039	2928
3	25.64	118.22	388.2	1.004	1.251	1.039	3956
4	25.64	181.10	443.2	1.002	1.251	1.044	6077
5	25.64	214.91	513.2	.9905	1.251	1.047	7149

NO.	R _t	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ 69.020 _____ Mcf/bbl. A.P.I. Gravity of Liquid Hydrocarbons _____ 57.8 @ 60 _____ Deg. Specific Gravity Separator Gas _____ 0.6515 _____ Specific Gravity Flowing Fluid _____ X X X X X _____ Critical Pressure _____ 670 _____ P.S.I.A. _____ 669 _____ P.S.I.A. Critical Temperature _____ 368 _____ R _____ 385 _____ R
1	.62	530	1.44	.927	
2	.62	529	1.44	.927	
3	.58	516	1.40	.926	
4	.66	518	1.41	.918	
5	.77	530	1.44	.912	

NO.	P _i ²	P _g ²	P _s ²	P _i ² - P _s ²	$(1) \frac{P_c^2}{P_i^2 - P_s^2} = 2.801$ $(2) \left[\frac{P_i^2}{P_i^2 - P_s^2} \right]^n = 1.857$ $\left[\frac{P_i^2}{P_i^2 - P_s^2} \right]^n = 11.286$
1		3010.2	9061.3	420.2	
2		2910.2	8469.3	1012.2	
3		2788.2	7774.1	1707.4	
4		2469.2	6096.9	3384.6	
5		1996.2	3984.8	5496.7	

Absolute Open Flow _____ 11,286 _____ Mcfd @ 15.025		Angle of Slope θ _____ 59°	Slope, n _____ .601
Remarks: BOTTOM HOLE PRESSURES MEASURED WITH AMERADA GAUGE @ 7,064 FEET.			
WELL MADE A TOTAL OF 14.11 BBLs OF CONDENSATE DURING THE TEST.			
Approved By Commission:	Conducted By: J.A.B.	Calculated By: R.E.R.	Checked By: J.W.W.